Missouri Department of Natural Resources

PUBLIC NOTICE

DRAFT MISSOURI STATE OPERATING PERMIT

DATE: December 3, 2004

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, ATTN: Peter Goode, P.E., Chief, NPDES Permits and Engineering Section. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by January 3, 2005 or received in our office by 5:00 p.m. on January 6, 2005. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, http://www.dnr.mo.gov/wpscd/wpcp/homewpcp.htm , or at the Department of Natural Resources, Water Protection Program, 205 Jefferson Street, P.O. Box 176, Jefferson City, Missouri 65102, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Public Notice Date: Permit Number: MO-0111325 Southwest Regional Office	
FACILITY NAME AND ADDRESS	**NAME AND ADDRESS OF OWNER**
International Paper – Joplin 3202 E. 20th Street Joplin, MO 64804	International Paper 6600 LBJ Freeway Dallas, TX 75240
RECEIVING STREAM & LEGAL DESCRIPTION	**TYPE OF DISCHARGE**
See below	Industrial, reissuance

Outfall #001: Joplin Creek (Turkey Creek Basin) NW ¼, Sec. 18, T27N, R32W, Jasper County
Outfall #002: Silver Creek (Shoal Creek Basin) SW ¼, Sec. 18, T27N, R32W, Jasper County

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0111325
Owner:	International Paper
Address:	6600 LBJ Freeway, Dallas, TX 75240
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	International Paper - Joplin
Facility Address:	3202 East 20th Street, Joplin, MO 64804
Legal Description:	Outfall #001: NW ¼, Sec. 18, T27N, R32W, Jasper County Outfall #002: SW ¼, Sec. 18, T27N, R32W, Jasper County
Latitude/Longitude:	
Receiving Stream:	#001: Joplin Creek (U); #002: Silver Creek (P)
First Classified Stream and ID:	#001: Joplin Creek (U) (03217); #002: Silver Creek (P) (03244)
USGS Basin & Sub-watershed No.:	#001: (11070207-160020); #002:(11070207-170005)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

All Outfalls – Industry/Stormwater runoff - SIC #2491

Outfall #001 – International Paper Northwest property line.
- Design flow is 1.0 MGD.
- Actual flow is rainfall dependent.

Outfall #002 – Southeast property line.
- Design flow is 1.0 MGD.
- Actual flow is rainfall dependent.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

Effective Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Expiration Date

Jim Hull, Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Upstream Monitoring (See Special Conditions)						
Flow	MGD	*		*	once/month**	24 hr. total
Biochemical Oxygen Demand [5]	mg/L	*		*	once/month**	grab
Chemical Oxygen Demand	mg/L	*			once/month**	grab
Total Suspended Solids	mg/L				once/month**	grab
Oil & Grease	mg/L	*		*	once/month**	grab
pH – Units	SU			*	once/month**	grab
Pentachlorophenol	µg/L	*		*	once/month**	grab
Outfalls #001 and #002 (See Special Conditions)						
Flow	MGD	*		*	once/month	24 hr. total
Biochemical Oxygen Demand5	mg/L	*		*	once/month**	grab
Chemical Oxygen Demand	mg/L	*		*	once/month**	grab
Total Suspended Solids	mg/L	*		*	once/month**	grab
Nitrate as N	mg/L	*		*	once/month**	grab
Sulfates	mg/L	*		*	once/month**	grab
Chlorides	mg/L	*		*	once/month**	grab
Oil & Grease	mg/L	*		*	once/month**	grab
Phenols, Total	mg/L	*		*	once/month**	grab
Ammonia as N	mg/L	*		*	once/month**	grab
Settleable Solids	mg/L	2.5		1.5	once/month**	grab
Temperature	°C	*		*	once/month**	grab
pH – Units	SU	***		***	once/month**	grab
Oil & Grease	mg/L	15		10	once/month**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont.)

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfalls #001 and #002 (continued)						
Zinc, Total and Dissolved	µg/L	*		*	once/month**	grab
Acenaphthene	µg/L	*			once/month**	grab
Anthracene	µg/L	*		*	once/month**	grab
Benzo(a)anthracene	µg/L	*		*	once/month**	grab
Dibenzo(a,h)anthracene	mg/L			*	once/month**	grab
Dibenzo-p-dioxins	ng/L			*	once/month**	grab
Ideno(1,2,3-cd)pyrene	µg/L			*	once/month**	grab
Penanthrene	mg/L	*		*	once/month**	grab
Pentachlorophenol	mg/L	0.015			once/month**	grab
Pyrene	mg/L	*		*	once/month**	grab
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE _____.						
Whole Effluent Toxicity (WET) Test	% Survival	(Special Conditions #12)			once/year in November	grab
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Part I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.
** Sample during discharge event.
*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

C. SPECIAL CONDITIONS

1. If the receiving stream has flow above the International Paper (IP) grounds, upstream monitoring for all parameters listed on page 2, "Upstream Monitoring", shall be performed on Joplin Creek at the upstream property line, prior to influence of IP property runoff, at the same time the downstream monitoring is done. If no flow is present at this location, the report will indicate "No Flow" for upstream monitoring.

C. SPECIAL CONDITIONS (continued)

2. The permittee shall perform monthly stormwater monitoring on discharges that flow tributary to Silver Creek for all parameters listed on pages 2 and 3, Outfalls #001 and #002, at the east property line (OF-2) prior to influence of neighboring property runoff. Reports shall be due monthly on the [illegible] covering the preceding month, not including the reporting month.

3. This permit does not authorize the discharge of process wastewater into Jones Creek or its tributaries or into Silver Creek or its tributaries.

4. Permittee shall collect in the [illegible] year's sediment sample at the sampling locations for Outfalls #001 and #002 (OF-1 and OF-2). Each sample shall be a composite sample made up from sufficient grab samples (minimum of four) to adequately characterize the flow manner. The sample shall be analyzed for Pentachlorophenol and Dibenzo-p-dioxins.

5. Samples taken herein shall be representative of the nature and volume, respectively, of the monitored discharge. All samples shall be taken at the outfall(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

6. This permit may be reopened and modified, or alternatively revoked and reissued, to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

7. All outfalls must be clearly marked in the field.

8. Permittee will cease discharge by connection to aerated wastewater treatment system within 90 days of notice of its availability.

9. Changes in Discharges of Toxic Substances
   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 ug/L);
      (2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

C. SPECIAL CONDITIONS (continued)

(3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
(4) The level established in Part A of the permit by the Director.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

10. Report as no-discharge when a discharge does not occur during the report period.

11. Water Quality Standards

(a) Discharges to waters shall not cause violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.

(b) General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

(1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
(2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
(3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
(4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
(5) There shall be no significant human health hazard from incidental contact with the water;
(6) There shall be no acute toxicity to livestock or wildlife watering;
(7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
(8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

12. Whole Effluent Toxicity (WET) tests will be conducted as follows:

SUMMARY OF WET TESTING FOR THIS PERMIT				
OUTFALL	A.E.C. %	FREQUENCY	SAMPLE TYPE	MONTH
#001 & #002	100%	Annually	grab	November

(a) Test Schedule and follow-up Requirements

(1) Perform a single-dilution test in the months and at the frequency specified above. If the effluent passes the test, do not repeat the test until the next test period.
Submit test results along with complete copies of the test reports as received from the laboratory within 30 calendar days of availability to the WPP, Water Quality Monitoring and Assessment Section, P.O. Box 176, Jefferson City, MO 65102.

C. SPECIAL CONDITIONS (continued)

(2) If the effluent fails the test, a multiple dilution test shall be performed within 30 calendar days, and biweekly thereafter, until one of the following conditions are met:
(a) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.
(b) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.

(3) The permittee shall submit a summary of all test results for the test series along with complete copies of the test reports as received from the laboratory to the Water Quality Monitoring and Assessment Section, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.

(4) Additionally, the facility shall, upon failure of the third test: A toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The permittee shall contact WPP, Water Quality Monitoring and Assessment Section to ascertain as to whether a TIE or TRE is appropriate. The permittee shall submit a plan for conducting a TIE or TRE to the Planning Section of the WPP within 60 calendar days of the DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.

(5) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.

(6) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.

(7) All failing test results shall be reported to WPP, Water Quality Monitoring and Assessment Section, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the availability of the results.

(8) When WET test sampling is required to run over one DMR period, each DMR report shall contain information generated during the reporting period.

(9) Submit a concise summary of all test results with the annual report.

(b) PASS/FAIL procedure and effluent limitations:

(1) To pass a single-dilution test, mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; p = 0.05) than that observed in the upstream receiving-water control sample. The appropriate statistical tests of significance will be those outlined in the most current USEPA acute toxicity manual or those specified by the MDNR.

(2) To pass a multiple-dilution test:
(a) the computed percent effluent at the edge of the zone of initial dilution, Acceptable Effluent Concentration (AEC), must be less than three-tenths (0.3) of the LC_{50} concentration for the most sensitive of the test organisms; or,
(b) all dilutions equal to or greater than the AEC must be nontoxic. Failure of one multiple-dilution test is an effluent limit violation.

C. SPECIAL CONDITIONS (continued)

(c) Test Conditions

(1) Test Type: Acute Static non-renewal

(2) Test species: Ceriodaphnia dubia and Pimephales pr as (fathea innow). Organisms used in WET testing shall come from cultures reared for th rpos ductin xicity tests and cultured in a manner consistent with the most current USE uide . All test mals shall be cultured as described in the most current e Meth Mea ing the Acute Toxicity of Effluents and Receiving Waters to Fres ater he C

(3) Test period: 48 hours he ep le Concentration" (AEC) specified above.

(4) When dilutions are requ eam receiving stream water shall be used as dilution water. If upstream water is unavailable or if ity in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.

(5) Single-dilution tests will be run with:
(a) Effluent at the AEC concentration;
(b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
(c) reconstituted water.

(6) Multiple-dilution tests will be run with:
(a) 100%, 50%, 25%, 12.5%, and 6.25% effluent, unless the AEC is less than 25% effluent, in which case dilutions will be 4 times the AEC, two times the AEC, AEC, 1/2 AEC and 1/4 AEC;
(b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
(c) reconstituted water.

(7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.

SUMMARY OF TEST METHODOLOGY FOR WHOLE-EFFLUENT TOXICITY TESTS

Whole-effluent-toxicity test required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless more stringent methods are specified by the DNR, the procedures shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms,

Test conditions for Ceriodaphnia dubia:

Test duration:	48 h
Temperature:	25 ± 1 [illegible] shall not [illegible] by more than 3°C during test
Light Quality:	[illegible] laboratory [illegible] mination
Photoperiod:	[illegible] light [illegible]
Size of test vessel:	[illegible] (minimum)
Volume of test solution:	[illegible] (minimum)
Age of test organisms:	24 h old
No. of animals/test vessel:	5
No. of replicates/concentration:	4
No. of organisms/concentration:	20 (minimum)
Feeding regime:	None (feed prior to test)
Aeration:	None
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at $p \leq 0.05$)
Test acceptability criterion:	90% or greater survival in controls

Test conditions for (Pimephales promelas):

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light/ 8 h dark
Size of test vessel: 250 mL (minimum)	
Volume of test solution:	200 mL (minimum)
Age of test organisms:	1-14 days (all same age)
No. of animals/test vessel:	10
No. of replicates/concentration:	4 (minimum) single dilution method 2 (minimum) multiple dilution method
No. of organisms/concentration:	40 (minimum) single dilution method 20 (minimum) multiple dilution method
Feeding regime:	None (feed prior to test)
Aeration:	None, unless DO concentration falls below 4.0 mg/L; rate should not exceed 100 bubbles/min.
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at $p \leq 0.05$)
Test Acceptability criterion:	90% or greater survival in controls

WATER QUALITY STANDARDS REVIEW SHEET

FACILITY: International Paper - Joplin

NPDES: MO-0111325

RECEIVING STREAM: Joplin Creek. This stream flows about three miles from the IP site to join Turkey Creek just above Lone Elm Creek.

RECEIVING STREAM BENEFICIAL USES: Joplin Creek is not a "classified" stream but, surveys of regional office personnel indicate the stream contains aquatic habitat and supports aquatic life (at least minnows and crayfish) along a parkway several blocks long, beginning about 3/8 mile downstream of IP.

PENTACHLOROPHENOL (PCP): The general criteria of the Water Quality Standards require all water that supports aquatic life, even if on a temporary basis, to be free of substances in acutely toxic concentrations. Missouri water quality standards, 10 CSR 20-7.031, contain only chronic aquatic-life criteria for PCP; however, the EPA's PCP water quality criteria document recommends "acute" ("1-hour average") criteria as well – these criteria are pH dependent: at pH 7.5 the criterion is 15 µg/L.

There is a large EPA toxicity database for PCP. The data indicate a variety of common species are relatively sensitive (LC50s < µg/L); these include carp, catfish, bluegill, fathead minnow, goldfish, mosquitofish, bullfrog, a snail, a cladaceran, and an amphipod. This variety of sensitive species indicates that the "recalculation" method of site-specific criteria modification would not yield a less-stringent criterion.

OTHER POLLUTANTS: Monitoring has been required for BOD, COD, TSS, Oil and Grease, and certain salts, metals, PAHs, and dioxins. It is suggested monitoring be continued for COD, TSS, Oil & Grease, Zinc and Chloride; others may be continued at the discretion of the permit writer.

WHOLE-EFFLUENT TOXICITY (WET) TESTS: Past WET tests have consistently shown toxicity; a TIE identified PCP as the cause. An annual test at 100% effluent should be continued.

REVIEWER: RJL DATE: 8-30-04 UNIT CHIEF: RJL